

Appl. No. 10/020,541
Reply to Office action of January 13, 2005

Amendments to the Specification

Please replace the paragraph beginning at page 4, line 14 with the following amended paragraph:

Recombinant forms of PEDF and fragments thereof have been made and expressed in *E. coli* as well as mammalian cells. The amino acid sequence of human PEDF is ~~as follows~~ provided as SEQ ID NO:1 below:

mqalvlllci gallghsscq npasppeegs pdpdstgalv eedpffkvp
vnklaavsn fgydlyrvrs smspttnvll splsvatals alslgadert
esiihralyy dlisspdihg tykelldttv apqknksas rivfekklri
kssfvaplek sygtrprvlt gnprldlgei nnwvqaqmkq klarstkeip
deisilllgv ahfkggwvtk fdsrktstled fyldeertvr vpmmsdpkav
lryglstdls ckiaqlpltg smsiifflpl kvtnltlie esltsefihd
idrelktvqa vltvpklkls yegevtkslq emklqslfids pdfskitgkp
ikltqvehra gfewnedgag ttpspglqpa hltfpldyhl nqpffivlrd
tdtgallfig kildprgp

Please replace the paragraph beginning at page 6, line 1 with the following amended paragraph:

Human NGF has an amino acid sequence, from amino to carboxyl terminus, ~~as follows~~ provided in SEQ ID NO:2 below:

mqagqyqqqr rkfaaaflaf ifilaavdta eagkkekepek kvkksdcgew
qwsvcvptsg dcglgtregt rtgaeckqtm ktqrckipcn wkkqfgaack
yqfqawgecd lntalktrtg slkralhnae cqktvtiskp cgkltkpkpq
aeskkkkkeg kkqekmld

Appl. No. 10/020,541
Reply to Office action of January 13, 2005

Please replace the paragraph beginning at page 6, line 9 with the following amended paragraph:

NGF sequences are available via the National Center for Biotechnological Information website (~~http://www.ncbi.nlm.nih.gov/~~). This human NGF amino acid sequence is present in the NCBI database under Genbank Accession No. AAA35961.

Please replace the paragraph beginning at page 6, line 23 with the following amended paragraph:

The growth factor ciliary neurotrophic factor (CNTF) has been shown to be effective in the protection of photoreceptors in rds/rds mutant mice, another model of retinitis pigmentosa. In one such study, the CNTF was administered via an adenovirus gene transfer vector containing a nucleic acid region comprising an expressible open reading frame encoding the CNTF gene. Cayouette et al., *J. Neurosci.* 18:9282 (1998), incorporated by reference herein. The adenovirus vector used for these studies was a replication-defective construct lacking the E1 region of the viral genome, and the CNTF gene was fused to the leader sequence of nerve growth factor which directed the protein's secretion from the vector-transduced cells. The vector was administered by intravitreal injection; the amount injected was 2.9×10^7 plaque forming units (pfu) in 1 μ l. The rds/rds mice given this vector displayed greater photoreceptor survival than in animals given a negative control. Additionally, the CNTF expression vector showed greater neuroprotection than in similar animals given an intravitreal injection of recombinant CNTF protein. Thus, the ability of the

Appl. No. 10/020,541
Reply to Office action of January 13, 2005

CNTF expression vector to provide a sustained dosage of CNTF to retinal cells appears to counteract the turnover of the CNTF protein in oculo. The amino acid sequence of human CNTF is as follows provided below as SEQ ID NO:3:

Please replace the paragraph beginning at page 7, line 25 with the following amended paragraph:

CNTF sequences are available via the National Center for Biotechnological Information website (~~http://www.ncbi.nlm.nih.gov/~~). This human CNTF amino acid sequence is present in the NCBI database under Genbank Accession No. UNHUCF.

Please replace the paragraph beginning at page 8, line 15 with the following amended paragraph:

The amino acid sequence of BDNF is given below as SEQ ID NO:4:

Please replace the paragraph beginning at page 8, line 23 with the following amended paragraph:

BDNF sequences are available via the National Center for Biotechnological Information Website (~~http://www.ncbi.nlm.nih.gov/~~). This human BDNF amino acid sequence is present in the NCBI database under Genbank Accession No. AAA96140.